TechniSat®

DigiPal 1

Art.-No. 0000/4903

**Receiver for
DVB-T programmes**

Operating Manual

DVB
Digita Video
Broadcasting

EPG

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IN

(AERIAL SUPPLY)
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SERVICE

CE

MADE IN GERMANY

Antenna
output

SCART socket TV

RS 232
interface

3 Please read this first

> Before you start operating the receiver, please check that all necessary parts have been delivered. You should have the following:
> 1 receiver, 1 mains plug/adapter, 1 remote control, 1 operating manual, 1 guarantee card, 2 batteries (1,5V micro-cells).
> Insert the batteries supplied in the battery compartment of the remote control unit, taking care to observe the indicated polarity.
> Before connecting the receiver, please first read the safety precautions in **Chapter 3**.
> **Chapters 4 and 5** describe connecting the receiver, and adjusting it to the antenna and the television set.
> **Chapter 6** describes all the functions required for everyday use, such as programme selection or volume adjustment.
> In **Chapter 7** you will find information on how to add new programmes, or how to change the order of programmes in the list.
> Technical terms used in the operating manual are explained in **Chapter 8**.
> Technical data may be found in **Chapter 9**.
> A trouble-shooting guide to help you find and correct faults can be found in **Chapter 10**.

Disposal instructions
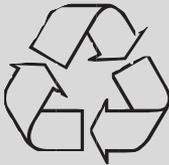
The packaging materials used for this unit consist entirely of recyclable materials. Please ensure that they are disposed of appropiately, e.g. via the "Dual System" in Germany. Please note that spent batteries such as those used in th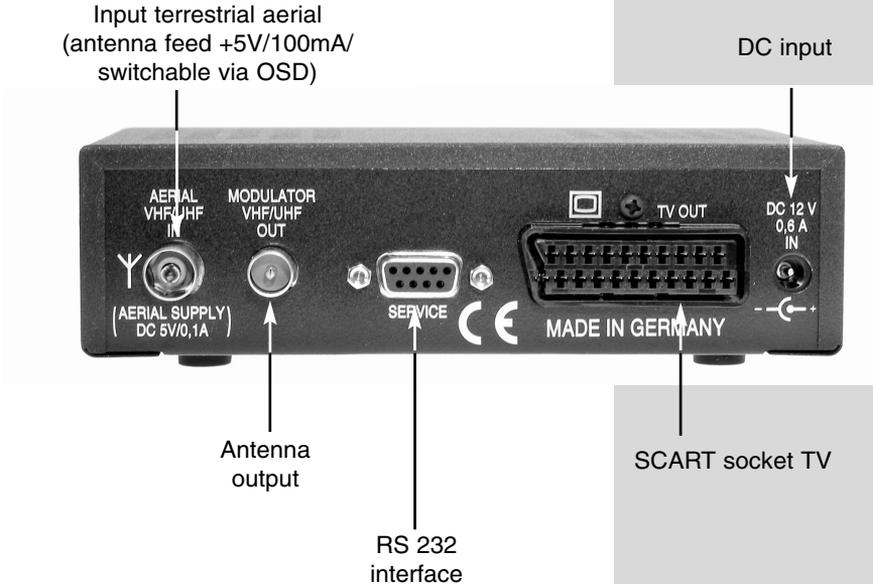e remote control, as well as any electronic parts, should not be disposed of in your regular domestic refuse. They should be disposed of separately, either via your ratailer, or through the local authorities.

Disconnecting the unit

The unit should be disconnected from the mains power supply during electrical storms, or when the unit is not in use for an extended period of time.

Safety precautions

For your own protection you should read the safety precautions carefully before operating your new receiver. The manufacturer accepts no liability for damage caused by inappropriate handling, or by non-compliance with the safety precautions.

> In order to ensure adequate air circulation, place the unit on a smooth, flat surface, and do not place any articles on the top of the unit. Air slots designed to assist circulation, and to allow heat to dissipate from the unit, are located here.
> Do not place any burning objects, such as lighted candles, on top of the unit.
> Do not expose the unit to water in drop or spray form, and do not place any liquid-filled objects, such as vases, on top of the unit.
> The unit should be operated only in a temperate climate.
> Under no circumstances should you open the unit! You are in danger of receiving an electric shock. If it is necessary to open the unit, this should only be carried out by qualified persons.
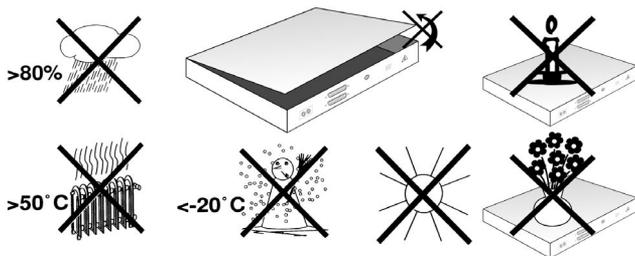
In the following cases you should disconnect the unit from the mains power and call a repair specialist:

> the power switch or the cable are damaged
> the unit has been exposed to humidity, or liquid has entered the unit
> in case of considerable malfunction
> in case of severe external damage

(Fig. 3-1)

Important notes on operation

The use of so-called "On Screen Displays" (see example) simplifies the operation of the receiver, and reduces the number of keys required on the remote control. All functions are indicated on the TV screen, and can be adjusted with a few key-strokes. Groups of functions that belong together are placed in "MENUES".

The function selected will be highlighted in a different colour. The function keys red, yellow, green and blue are depicted by coloured bars in the bottom line. These colour bars represent different functions in the various menues, which can be initiated by pressing the appropriate coloured keys (multi-function keys) on the remote control. The function keys are only active when a brief description is shown in the appropriate field.

Help function:

Wherever it is available in a menu, pressing the **blue** function key will display a help text, pressing again will end the display.

Key descriptions and terms used in the OSD menu are printed in bold type in this operating manual.
For example:

> Use the **Menu** key to call up the **Main Menu**. *(Fig. 3-1)*
> Now select the line **OSD-Sprache/Language** by using the **arrow keys up/down** to highlight the appropriate line.
> Confirm by pressing **OK**.
> You can exit from the menu either by pressing the **Menu** okey or by repeatedly pressing the key **Back**.

Initial installation

(Fig. 3-2)

Once you have read the safety precautions, connect the unit as described in Chapter 4. Then switch on the unit as described in Chapter 6. When switching on the receiver for the first time the installation window will be displayed *(Fig. 3-2)*. In order to adjust the most important settings of the receiver, simply follow the instructions.
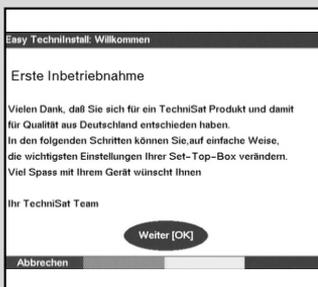
> Press the **OK** key to display the selection window for the **OSD language**. *(Fig. 3-3)*
> Use the **arrow keys up/down** to mark the required language.
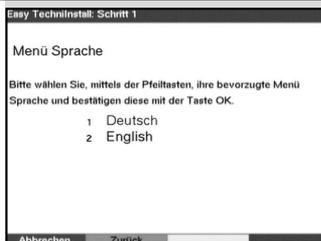
(Fig. 3-3)

> Confirm with **OK**, in order to advance to the selection of the preferred audio language. *(Fig. 3-4)*
> Use the **arrow keys up/down** to select the preferred audio language.

(Fig. 3-4)

> Confirm with **OK**, to confirm the selection, and to proceed to the selection of the time zone. *(Fig. 3-5)*
> Use the **arrow keys up/down** to select the time zone corresponding to your location.

(Fig. 3-5)

> Confirm b y pressing **OK** to confirm your selection, and to proceed to the channel search function. *(Fig. 3-6)*
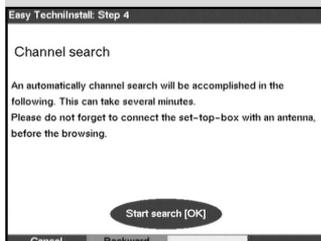
(Fig. 3-6)

> Please note the message displayed *(Fig. 3-7)* and commence the search by pressing **OK**.
  An automatic programme scan will now commence, covering the entire input frequency range of the receiver. This process may take several minutes.
> Your box is ready for operation when the search is completed.
> Press the **OK** key to complete the initial installation and to switch to normal operation.
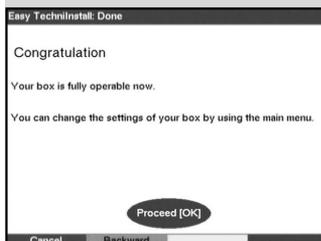
(Fig. 3-7)

Connecting the DVB receiver

Connection to a TV set by means of a Scart cable:
a. Connection from antenna to the **terrestrial antenna input** of the DVB-T receiver.
b. Mains power connection
c. Scart connection from the DVB-T receiver to the television set.
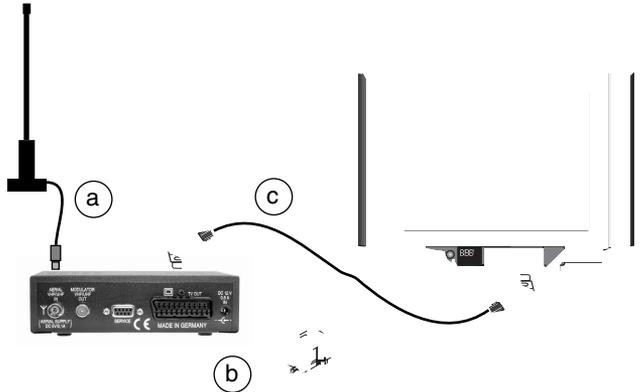
Connection to the TV set by means of an antenna cable:
a. Connection from the antenna to the **terrestrial antenna input** of the DVB-T receiver.
b. Mains power connection
d. Connection from the antenna output to the antenna input of the television set.
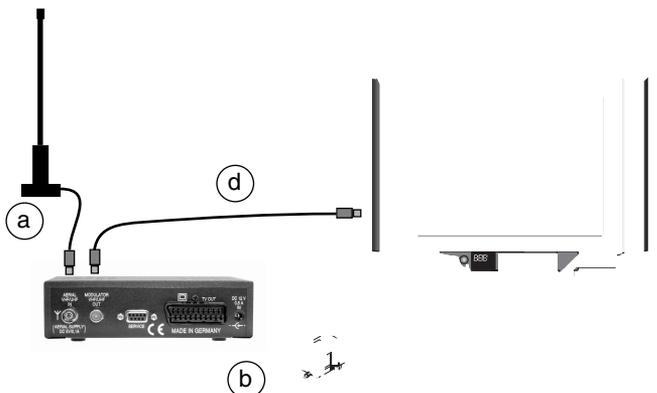
4 Connections

The references **a b c** etc. stated below refer to the illustration on page 10.

4.1 Mains power connection

The receiver should only be connected to the mains power supply when the unit has been completely connected with all other relevant components. This will eliminate the danger of damage to the receiver or other components.

b When you have effected all the connections, use the power connection switch supplied to connect the receiver with a 230V/50 Hz power supply.

4.2 Connection to the antenna

a The cable coming from the terrestrial antenna must be connected to the **terrestrial antenna input** of the receiver.

Where possible you should use a roof-mounted antenna. A room antenna may be sufficient where reception conditions are particularly favourable. When using an active antenna be sure to switch on the antenna feed (Point 5.2).

4.3 Connection to a television set

Once you have connected your receiver to the television set as described above, it may be necessary, before you can make further settings or adjustments, to adapt the receiver to the TV standard of your TV set.

Please note Point 5.3 (**Video system**).

4.3.1 Via SCART cable:

Using a SCART cable connection between the receiver and the TV set will ensure optimum image quality.

c Connect the receiver (**SCART socket TV**) and the TV set (SCART socket) via a SCART cable. If your TV set is appropriately equipped, it will switch automatically to AV mode, and thus to DVB-T mode, when the receiver is switched on.

4.3.2 Via HF cable:

If your TV set is not equipped with a SCART socket, you will have to connect the receiver to the antenna input socket of the TV set.

If this type of connection is used, sound reproduction will be in mono only.

d Connect the receiver (**Antenna output**) to the antenna input socket of your TV set by means of a suitable TV connection cable.

You must now tune your TV set to the transmission channel of the receiver. Select a free programme slot on your TV set and tune it to channel 41 (refer to operating manual of the TV set if necessary).

If you do not receive a clear image on channel 41, this may be the result of a neighbouring channel being set to a programme being received from the same antenna. You can check on this by temporarily removing the antenna cable from the **Input terrestrial antenna** socket of the receiver. If you then temporarily receive a clear image, you should select another transmission channel for the receiver in the range of 21 to 69.

4.4 Setting the UHF output channel

Proceed as follows:

> Press the **Menu** key to display the **Main Menu**. *(Fig. 4-1)*
> Now select the line **Settings**, using the **arrow keys up/down** to mark the appropriate line.
> Confirm by pressing **OK**.
  The sub-menu **Settings** will be displayed. *(Fig. 4-2)*
> Now use the **arrow keys up/down** to highlight the line **Audio/Video Settings**.
> Confirm by pressing **OK**.
  The sub-menu **Audio/Video Settings** will now be displayed. *(Fig. 4-3)*
> Now, use the **arrow keys up/down** in order to highlight the blue field, thus selecting the menu line **UHF output channel**.
> Now tune your TV set to a free UHF channel in the range of 21 to 69.
> Then set the new output channel of the receiver by means of the **arrow keys right/left**.
  The receiver will now transmit on the UHF channel shown on the display.

(Fig. 4-1)
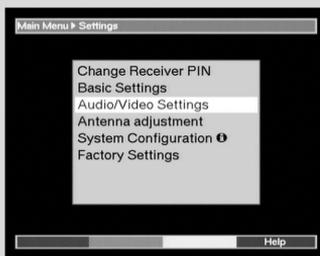
(Fig. 4-2)
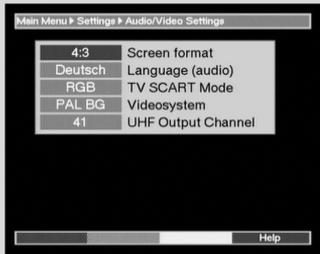
(Fig. 4-3)

Your receiver will now check automatically whether the channel you have selected, as well as the lower neighbouring channel adjoining it, are free *(Fig. 4-4)*. If the channel is already occupied, a note to this effect will be displayed *(Fig. 4-5)*. In this case, please repeat the procedure until you find a suitable free channel.

> When you have found the optimum UHF channel, please remember to store this in your TV set memory. You can now make further adjustments in the menu **Audio/Video Settings**, or you can press the **Menu** key to return to normal operation. This setting will be automatically stored when you exit the menu.
> If your television set is equipped only with an automatic search function, then simply set any UHF channel on your receiver, then start the automatic search procedure of your television set. If necessary, keep repeating this procedure until you have found a suitable output channel, then store this in your TV set memory.
> At this stage it may be necessary to fine-tune the channel on your TV set.

❶ Please wait. The UHF Output Channel you choosen and his neighbour channels will be tested now.

(Fig. 4-4)

❶ The use of this channel is not recommended, since this channel or its neighbour channels are either occupied or disturbed.

(Fig. 4-5)

4.5 Adjusting the antenna

Your receiver is equipped with a signal strength indicator to facilitate the optimum adjustment of the antenna.
> Press the **Menu** key to call up the **Main Menu**.
> Now use the **arrow keys up/down** to select the menu line **Settings**.
> Confirm by pressing **OK**.
  The sub-menu **Settings** will be displayed *(Fig. 4-6)*.
> Now use the **arrow keys up/down** to select the menu line **Antenna adjustment**.
> Confirm by pressing **OK**. The menu **Antenna adjustment** will be displayed *(Fig. 4-7)*
> Now use the **arrow keys left/right** to select the channel with the weakest reception signal strength.
> Now adjust the position of the antenna until both bar indicators show optimum signal strength.
  red bar   poor reception
  yellow bar   good reception
  green bar   very good reception

Main Menu ▶ Settings

Change Receiver PIN
Basic Settings
Audio/Video Settings
Antenna adjustment
System Configuration ❶
Factory Settings

Help

(Fig. 4-6)

Main Menu ▶ Settings ▶ Antenna adjustment

Channel   C 5 (177)
Signal   90
Quality   70

Help
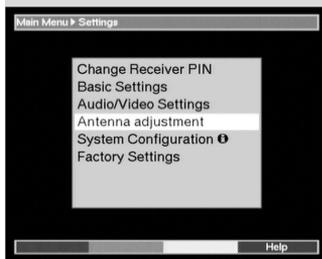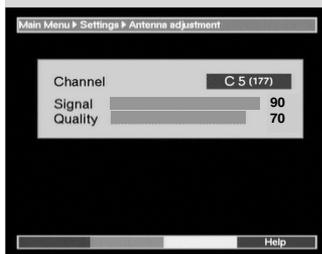
(Fig. 4-7)

4.6 Serial interface RS 232

The RS 232 interface serves to carry out updates of the operating software, as well as to facilitate pre-programming via a PC.

5 Installation

Now that you have connected your receiver, and commenced operation, you can turn to optimising the setting for your personal preferences.

5.1 OSD Language

(Fig. 5-1)

This menu item gives you the option of selecting the menu language of your choice.

In order to change the OSD language, proceed as follows:
> Press the **Menu** key to call up the **Main Menu**. *(Fig. 5-1)*
> Use the keys **arrow keys up/down** to select the menu line **OSD Language**.
> Confirm by pressing **OK**.
   The sub-menu **OSD Language** will be displayed.
> Use the **arrow keys up/down** to select the desired language.
> Store the selection in memory by pressing **OK**.
> Press the **Back** key to return to the **Main Menu**.
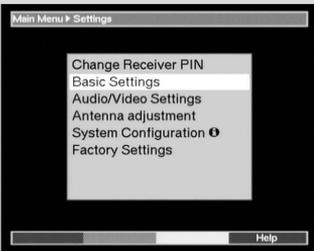
5.2 Basic settings

(Fig. 5-2)
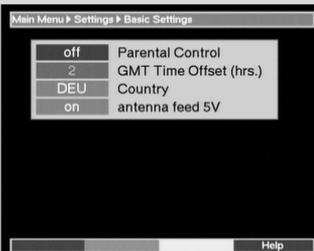
(Fig. 5-3)

In order to operate your DVB receiver as conveniently as possible, you should make some adjustments to accommodate your personal preferences.
> Press the **Menu** key to call up the **Main Menu**.
> Use the **arrow keys up/down** to select the line **Settings**.
> Confirm by pressing **OK**.
   The menu **Settings** will be displayed *(Fig. 5-2)*
> Use the **arrow keys up/down** to select the line **Basic Settings.**
> Confirm by pressing **OK**.
   The menu **Basic Settings** will be displayed *(Fig. 5-3)*.
> Use the **arrow keys up/down** to move around within the menu, and to change the individual positions as indicated. When selecting a menu item please also note notices displayed on screen, where applicable.
   The following settings can be made:

5.2.1 Parental control

Your receiver is equipped with a parental control function. Programmes that you have blocked in line with **Points 7.1.5** and **7.2** can only be viewed after a four-digit PIN code has been entered. Go to this line and press the **OK** key to activate or deactivate the parental control function **on** resp. **off**.

5.2.2 Time difference to GMT (hours)

Your receiver is equipped with a clock. This is synchronised via the signal received with **G**reenwich **M**ean **T**ime. If you have entered **None** (see 5.2.3) under **Country**, then you must simply correct the current time with regard to your local time, using the **arrow keys left/right** or the **OK** key. For Germany, this difference is **+1** hour in winter, **+2** hours in summer.

5.2.3 Country

This function automatically provides for the switch to Daylight Savings Time in summer, and back in winter. Use the **arrow keys left/right** to enter your location in the line **Country**.

> Press the **Back** key to return to the **Settings** menu, or press the **Menu** key to return to normal operation. The settings will be automatically stored in memory.

5.2.4 Antenna feed 5V

If you are using an active antenna, you will have to switch on the antenna feed (5V/100mA). The antenna will be supplied via the **Terrestrial antenna input**.

> Use the **arrow keys left/right** in this line to switch the antenna feed **on** or **off**.

In case of overload, or if there is a short circuit in the antenna feed, this will be switched off automatically. If this occurs, please repair the fault, then switch on the antenna feed again.

5.3 Audio/Video Settings

In order to optimise the settings of your receiver for your TV set, additional settings may be made in the menu **Audio/Video settings**.

> Press the **Menu** key to call up the **Main Menu**.
> Use the **arrow keys up/down** to select the line **Settings**.
> Confirm by pressing **OK**. The sub-menu **Settings** will be displayed. *(Fig. 5-4)*
> Now use the **arrow keys up/down** to highlight the line **Audio/Video Settings.**

(Fig. 5-4)

4:3	Screen format
Deutsch	Language (audio)
RGB	TV SCART Mode
PAL BG	Videosystem
41	UHF Output Channel

Help
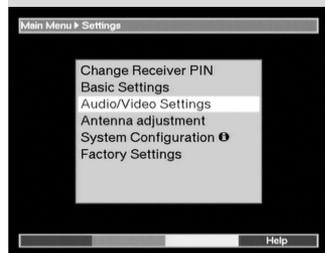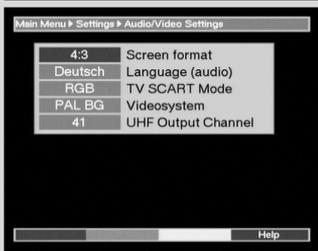
(Fig. 5-5)

> Confirm by pressing **OK**. The menu **Audio/ Video Settings** will be displayed. *(Fig. 5-5)*
> You can use the **arrow keys up/down** to move the marker within the menu, and to change the individual positions as indicated. When selecting a menu item please also note any additional notes displayed. The following adjustments can be made:

5.3.1 Picture format

> Use the **arrow keys left/right** to select the appropriate picture format for your TV set, either **4:3** or **16:9**. This function allows the picture format to be adjusted automatically for your television set.

5.3.2 Language (Audio signal)

> Use the **arrow keys left/right** in this line to select your preferred language. Where available, this function will scan for all languages being transmitted, and will automatically set your preferred language.

5.3.3 TV SCART-Modus

> Use the **arrow keys left/right** in this line to select either **FBAS** or **RGB,** whichever is appropriate for your TV set. For standard sets, the default setting is **RGB**.

5.3.4 Video system

> Use the **arrow keys left/right** in this line to select the broadcasting standard apprpriate to your TV set. The options that can be selected are **PAL BG** (standard setting), **PAL I** and **SECAM BG**.

5.3.5 UHF output channel

See Point 4.4.

> Press the key **Back** to return to the menu **Settings** or press the **Menu** key to return to normal operation. The settings are automatically stored in memory.

6 Operation

Please note:
Before you can attend to the operation of the unit, you should, if this was not already done during the initial installation, carry out a programme search (Point 7.4), and where necessary configure the Favourites list (Point 7.1). Only when this is completed will all the digital programmes available in your location be available to you.

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6.1 Switching on and off

> Switch the receiver on by pressing the **On/Standby** key, either on the receiver itself or on the remote control unit.
> Pressing this key again on the receiver or on the remote control will switch the receiver off again.
> The receiver is now in standby mode, and the display on the receiver box front panel will show the time. If the time is not displayed, this must still be entered into the unit. To do this, switch the receiver on, and switch to reception of any major channel, such as ZDF, to enter the time automatically.

6.2 Programme Selection

6.2.1 Using the Programme up/down keys

> You can use the **Programme up/down** keys on the receiver or on the remote control to move up or down the programme list one slot at a time.

6.2.2 Using the numeric keypad

> Simply enter the desired programme number via the numeric keypad.

For example:

1   for programme slot 1
1, then **4**   for programme slot 14
2, then **3**, then **4** for programme slot 234

When entering programme numbers with more than one digit, you have approx. 3 seconds after entering a number to continue to the next digit. If you wish to enter a programme number with only one or two digits, you can speed up the switching process by holding down the last number a little longer.

6.2.3 Using the programme list

> Press the **OK** key.
    The programme list will now be displayed. *(Fig. 6-1)*
While in TV mode, only TV programmes will be displayed, and only radio programmes will be displayed while the receiver is in radio mode. The programme currently selected will be highlighted.

> You can now use the **arrow keys up/down** to highlight the desired programme.
> Press the **OK** key to select the highlighted programme.
> Use the **arrow keys up/down** to scroll through the list one line at a time.
> Use the **arrow keys left/right** to scroll quickly through the list one page at a time.

(Fig. 6-1)

(Fig. 6-2)

(Fig. 6-3)

Receiver PIN   ????
(Fig. 6-4)

Present Event: 10:30 to 12:00
Mord an Bord

1 11:52 TV-List
Das Erste   16:9 TxT
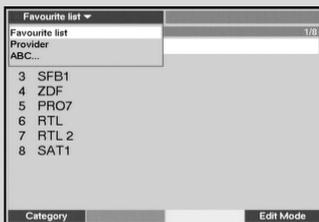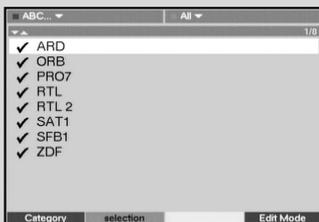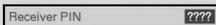
(Fig. 6-5)

6.2.3.1 Selecting a list

The receiver is equipped with several programme lists, which facilitate the finding of programmes. You can select either your personal **Favourites list** (see Point 7.1), or you can choose to have the programmes sorted according to the **Alphabet** or by **Provider**.

> Press the **OK** key. The active programme list will be displayed.
> You can now use the **red** function key (category) to open a window with the available types of programme lists **(Favourites List, Provider** and **ABC ...**). The active programme list type is highlighted. *(Fig. 6-2)*
> Use the **up/down arrow keys** to select, for example, the programme list type **ABC** and confirm by pressing **OK**.
  The alphabetically sorted programme list, containing all programmes, will be displayed. *(Fig. 6-3)*
> Use the **up/down arrow keys** to select the programme you wish to view.
> Confirm by pressing **OK**.

6.2.4 Selecting blocked programmes

If a programme is selected that is blocked by the parental control function, the note **Unit PIN** will be displayed on screen *(Fig. 6-4)*

> Enter your PIN code by means of the **numeric keypad**.

The selected programme can now be viewed.
In order to facilitate viewing, the PIN code needs to be entered only once while the receiver is in operation. The parental control block will only be re-activated the next time the unit is switched on.

6.2.5 Information box

Each time you switch programmes an information box will be displayed briefly, indicating programme number and programme name *(Fig. 6-5)*. In addition, further programme characteristics will be displayed, such as **TxT** for Videotext, **16/9** for a 16/9 format broadcast, **A/B** for different audio channels (e.g. multilingual movie or various radio stations) and a key for encrypted programmes.

6.3 Volume control

You have the facility to adjust the volume of your receiver. This makes operating the receiver even easier, since it means you have all the important functions on the remote control of the receiver, and will only rarely have to use the remote control of your TV set.

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When switching on the receiver from standby, sound will be produced at the volume level last set.

> The volume of your receiver can be increased by using the **Volume +** key, or you can make it softer by using the **Volume -** key.
> Press the **Sound on/off** key to mute the sound, press the key again to switch the sound back on.

6.4 Selecting a different language

Where a programme is broadcast in several languages, or with several sound channels (**A/B** in the information box), you can select a different language or sound channel as follows:

> Press the key **Language selection**. If available, a list of the currently broadcast languages will be displayed on screen. (Fig. 6-6)
> Use the **arrow keys up/down** to select the desired language.
> Confirm by pressing **OK**.

You can now listen to the programme in the language selected. Your receiver is also able to receive mono broadcasts (**OO** in the information box). *(Fig. 6-7)*

Sound	
▼	1/8
English	
Deutsch	
Français	
Espanol	
Audio 5	
Italiano	

(Fig. 6-6)

Sound	
⚏ Audio 1	
⚏ Audio 1	
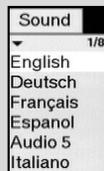
(Fig. 6-7)

6.5 TV/Radio switching

The pre-programming includes radio programmes as well as television programmes. In Radio mode, the accompanying TV picture is switched off, and only the programme name is displayed on screen.

> Switch the receiver into Radio mode by pressing the **TV/Radio** key.
  The receiver will now switch to the radio programme last selected.
> Press the **TV/Radio** key again to switch to the TV programme most recently selected.

6.6 Return to last programme selected

> Press the **Back** key on the remote control to return to the previous programme selected.
> Press the key again to return to the programme viewed before.

6.7 Display Time and Programme Information

This function allows you to view programme information related to the programme currently selected.

> Press the **blue** key to display information for the programme selected.

On the lower half of the screen you will see a display showing current time, the name of the programme selected, as well as the start and end times of the current programme, where available from the broadcaster.

> If available, pressing the **blue** multi-function key will display information relating to the next programme.

6.8 Additional Programme Information

Where available from the provider, additional programme information can be obtained by pressing the function **Programme information**.

> Press the **yellow** function key to open an additional information window. *(Fig. 6-8)*
> You will again see information relating to the current programme.
> Now press the **yellow** function key again to view information relating to the next programme.
> Press the **yellow** key again to switch off the display.

Present Event: 10:30 to 12:00
Mord an Bord
Lauter tolle Frauen Spielfilm Deutschland 2002

Die Frieöse Burkharda Meier bewirbt sich auf eine Anzeige, in der eine Gesangssolistin für einen Luxusliner gesucht wird. * Eine mit schwarzem Humor garnierte Komödie nach dem ▶

11:54 TV–List
1 Das Erste   16:9 TxT

(Fig. 6-8)

6.9 Channel Information

> Press the **green** function key (Channel Information) in order to view data relating to the channel selected. *(Fig. 6-9)*
> The coloured multi-function keys can be used to obtain and display additional **Audio/Video information**, **Programme information** and, where relevant, information on the **encryption system used**.
> Press the **Back** key to exit from the channel information.

Channel Information

Program ARD

Frequency 177.500 MHz
Bandwidth 7 MHz
Modulation QAM 16
Code rate 3/4
Guard interval 1/8
Transmission mode 8k
Offset 0
Netto bit rate 14.51 MBit/s
Signal level ||||||||||||||||||||||||||||||||| 4
Signal quality ||||||||||||||||||||||||||||||||| 0

Channel   Audio/Video   CA   Program

(Fig. 6-9)

6.10 Videotext

6.10.1 Using the Videotext decoder of your television set

Wherever this is broadcast, videotext will be available to your TV set. Use the remote control of your TV set to work with videotext. Should you experience problems with your TV set, such as video text and picture content being superimposed, you should set your receiver to **FBAS mode** (Point 5.3).
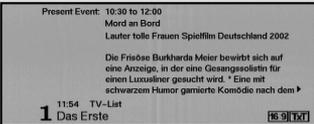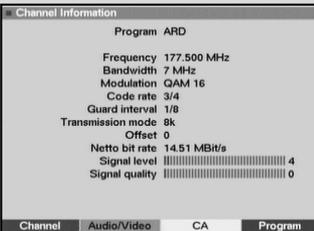
6.10.2 Using the internal Videotext decoder

If your television set is not equipped with an integrated videotext decoder, you can still receive videotext via your receiver, wherever available from the broadcaster.

> Select and switch to the programme of which you would like to view the videotext information.
> Press the **red** function key to switch on the videotext. *(Fig. 6-10)*
> Use the **numeric keypad** to enter the videotext page required. Your entry will be displayed in the upper left corner of the screen. Once you have entered the the videotext page required, the receiver will search for the appropriate page. As not all videotext pages can be transmitted simultaneously, it may take a few seconds until the receiver has found the page and displays it on your screen.

Page 100 is the Contents page for all videotext providers.

> Use the **red** resp. the **green** key to page forward resp. back.
> Press the **Back** key to return to normal operation.

(Fig. 6-10)

6.11 Electronic Programme Guide

The EPG function (**E**lectronic **P**rogramme **G**uide) enables you to display the programme schedules and contents on your television screen. This allows you to obtain a quick overview of the programmes and their contents being broadcast that day, and where available also for the following days.

### 6.11.1 Calling up Electronic Programme Guide

> Switch on the receiver as well as your television set.
> Press the **EPG** key on the remote control of your receiver. The electronic programme guide of the programme currently selected will appear on screen. This will contain data related to today's programmes *(Fig. 6-11)*.

(Fig. 6-11)

6.11.2 Programme preview for following days

Where this is available from the broadcaster, pressing the **arrow key right** will allow you to view information on the programme content for the following days, related to the programme currently selected.

Press the **arrow key left** to return to the previous tables.

(Fig. 6-12)

6.11.3 EPG Information

Where this is broadcast by the provider, the EPG function will provide you with information on the contents of various programmes:

> Use the **arrow up/down keys** to select the appropriate programme.
> Press either the **EPG** key or the **blue** function key (More) to display the information.
> *(Fig. 6-12)* Lengthy text passages can be moved around by using the **arrow up/down keys,** or you can page back and forth by using the **arrow left/right keys**.
> Press the **Back** key to return to the previous table.

6.11.4 Exiting from EPG

> Press the **Back** key to return to normal operation.

6.12 Timer

Your receiver is provided with a timer. This enables you to make video recordings even when you are absent. The timer operation is indicated by a blinking LED in the display, which serves as a control. Timer operation can be interrupted by pressing the **On/Standby** key.

6.12.1 Programming by means of EPG

(Fig. 6-13)

> Switch to the channel that carries the programme you wish to record.
> Press the **EPG** key.
> The EPG table of the currently selected programme will be displayed *(Fig. 6-13).*
> Use the **arrow keys up/down** to highlight the desired programme.
> Press the **yellow** function key (Record).
> The data relating to the selected programme will now be stored, and will be displayed on screen for control purposes *(Fig. 6-14)*
> In order to delete the timer marking, press the **green** function key (Delete) and confirm when requested to on screen.
> Press the **Back** key to return to the EPG table, and to add further programming if you so wish.

or

> Press the **TV/Radio** key to return to normal operation.

(Fig. 6-14)

At the programmed time the receiver will switch to the selected programme and will, if set appropriately, return to standby mode at the end of the programme.

6.12.2 Manual Programming / changing timer settings

In addition to EPG timer programming, you can also use manual programming. To use manual programming, proceed as follows:

> Use the **Menu** key to call up the **Main Menu**.
> Select the line **Timer** and confirm by pressing **OK**. The menu **Timer** will be displayed *(Fig. 6-15)*.
> Press the **yellow** function key (New) to go to timer programming, in order to programme a new event. *(Fig. 6-16)*
> In order to change an existing timer setting, use the **arrow keys up/down** to highlight this. Press the **yellow** function key (Change) to go to the settings of the highlighted timer.

In order to programme a setting, proceed as follows:

Source

> Use the **arrow keys** to select the category **Source** and use the **OK** key to select the desired source (**TV** or **Radio**).

Station/Channel

In this line you should select the TV station providing the programme which you would like to record:

> Use the **arrow keys** to select the line **Station**.
> Confirm by pressing **OK**. A programme list will be displayed.
> Use the **arrow keys** to highlight the desired programme.
> Confirm by pressing **OK**.
> The highlighted programme will now be added to the timer menu.

Date

> Use the **arrow keys** to highlight the category **Date.**
> Use the **numeric keypad** to enter the recording date.

Start

> Use the **arrow key right** to highlight the category **Start**.
> Use the **numeric keypad** to enter the starting time.

Stop

> Repeat the steps as described under "Start" to enter the time when the programme stops, or ends.

In order for the unit to cope with all these events, you should allow a break of at least one minute between the Stop time of a timer and the Start time of the following timer!
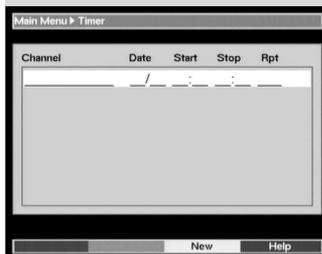
(Fig. 6-15)
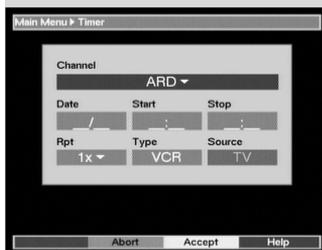
(Fig. 6-16)

Repeat (optional)
> Use the **arrow key right** to highlight the category
  Rep.
> Confirm by pressing **OK**.
  A selection window will be displayed, showing various
  suggestions for repeats.
  - **1x** Timer on
  - **T** Daily repeat
  - **1xW** Repeat once per week
  - **1-5** Daily repeat on workdays only
  - **6-7** Daily repeat on weekends only
> Use the **arrow keys up/down** to select the desired
  function.
> Press the **OK** to store the setting in memory.

Type
> Use the **arrow key right** to highlight the category
  Type.
> Press the **OK** dto select the desired type in this line.
  VCR
  Your receiver will be switched on resp. off for the pro-
  gramme you have selected. If the unit was switched
  on by the timer, most of the functions of the remote
  control will be deactivated, in order to prevent acciden-
  tal interference with the recording.
  Timer operation is indicated visually by the blinking of
  the LED display for control purposes.
  Noting function
  Your receiver will switch itself on at the time you have
  set as starting time, and will switch to the selected pro-
  gramme slot. Unlike the case of the VCR setting, the
  controls of the receiver remain fully functional and the
  unit will not be switched off at the end of the program-
  me.
> When you have completed the programming, press
  the **yellow function key** (Accept), in order to
  transfer the data to memory.
> Press the **TV/Radio** key to return to normal
  operation.

Note!!!
Ensure that the information box indicates the correct time. If
this is not the case, switch to the ZDF or other major
programme, then go to Standby. Switch on the receiver and
leave it tuned to ZDF (or other programme broadcasting time
signal) for approx. 30 seconds, so that the correct current
time can be scanned into the receiver.

7 Changing basic programming

7.1 Configuring the programme list

This chapter describes how you can change and adapt the preprogramming of your receiver as well as the Favourites programme list to suit to your own preferences. This function is also required to sort newly found programmes into the list after a programme search.

Please note the following:

Youir receiver is provided with two programme lists, the Favourites list and the Total list. The Favourites programme list contains all the programmes that you have taken into this list, using the procedure described below. The Total list contains all programmes.

This chapter also describes how you can delete a programme, and how you can block access to a programme by means of the parental control function. When calling up the programme list by pressing the **OK** key, the Favourites programme list will be displayed. When you are in TV mode you can view the TV list, and when you are in Radio mode you can view the list of radio programmes.

7.1.1 Calling up a Programme list

> Press the **OK** key.
> The Favourites programme list will be displayed. *(Fig. 7-1)*

7.1.2 Adding programmes to the programme list

To add programmes to the programme list selected, proceed as follows:

> Press the **red** function key to display a selection window that allows you to switch between the Favourites list and the Total list. This Total list contains all available programmes. You have the option of displaying the Total list sorted according to **Providers** or sorted alphabetically (**ABC...**).
> Use the **arrow keys up/down** to select the desired programme listing. (e.g. **ABC**)
> Confirm by pressing **OK**.
> An alphabetically sorted list will now be displayed. *(Fig. 7-2)*

■ Favourite list ▼	
▼▲	1/8
1 ARD	
2 ORB	
3 SFB1	
4 ZDF	
5 PRO7	
6 RTL	
7 RTL 2	
8 SAT1	
Category	Edit Mode

(Fig. 7-1)

■ ABC... ▼	All ▼
▼▲	1/8
✓ ARD	
✓ ORB	
✓ PRO7	
✓ RTL	
✓ RTL 2	
✓ SAT1	
✓ SFB1	
✓ ZDF	
Category	selection	Edit Mode
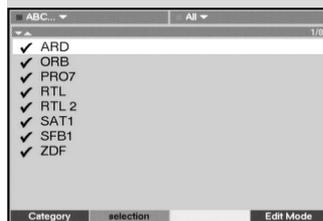
(Fig. 7-2)
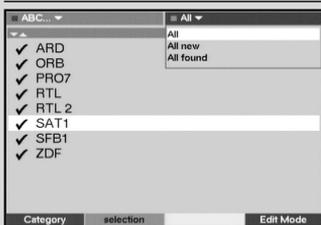
(Fig. 7-3)

> Press the **green** function key (Select) to display a selection window. *(Fig. 7-3)*
> Now use the **arrow keys up/down** to mark the category **All** in order to display all available programmes in the Total list, or select **All new** to display only new programmes found during the last scan, or select **All found** to display all programmes found during the last scan.
> Confirm by pressing **OK**.
> Depending on your selection, a list will be displayed showing either all programmes or all new programmes. Programmes that have already been entered in the Favourites list are indicated by a check-mark.

In order to add programmes to the Favourites list, or to delete them from this list, proceed as follows:

> Press the **blue** function key (Change).
> Use the **arrow keys up/down** to highlight a programme you wish to add to the list.
> Simply press the **green** function key (Add) to add the selected programme to the Favourites list.
> In order to select several programmes at the same time proceed as follows:
> Press the **OK** key to go to Selection mode.
> The highlighted programme will now ne indicated by a cross in the left margin, and the menu display will be shown in transparent form, with the picture in the background.
> You can now use the **arrow keys up/down** to select additional programmes, and mark them.
> Once you have selected and marked all the programmes you wish to add, press the **green** function key (Add) in order to add the marked programmes to the Favourites list.

7.1.3 Deleting programmes

7.1.3.1 Deleting from the Favourites list

If you use the above method to mark programmes with a cross that are already in the Favourites list (marked by a check-mark in the right margin), then pressing the **green** function key (Delete) will remove these programmes from the user table. However, they remain stored in the Total list, and can be added to the Favourites list again at any time.

7.1.3.2 Deleting from the Total list

Pressing the **red key** (Delete) followed by an affirmative response to a confirming question will cause highlighted programmes to be deleted from the Total list.

> Highlight the programmes you wish to delete as described above.

> Press the **red** function key (Delete).
  The message "Do you really want to delete the
  programme(s)?" will be displayed.
> Use the **arrow keys left/right** to select **Yes** or
  No.
> Confirm by pressing **OK.**

7.1.4 Sorting programmes

To sort the programmes in your Favorites list in the order
most convenient to you, proceed as follows:
> Press the **OK** key to call up the Favourites list.
> Press the **blue** function key (Change).
> Now use the **arrow keys up/down** to select the
  programme you wish to place at a different position in
  the list.
> Now press the **yellow** function key to select the
  function **Sort**. A double arrow will be displayed next
  to the selected programme.
> You can now use either the **arrow keys up/down**
  or the **numeric keypad** to move the programme to
  any position in the programme list.
> Press the **yellow** function key (Store) to store the
  new position of the programme in memory.
  In order to select a number of programmes
  simultaneously, proceed as follows:
> Press the **OK** key to go to the Select mode.
  The selected programme will now be indicated by a
  cross in the left margin.
> You can now proceed to select additional
  programmes, using the **arrow keys up/down**.
> When you have completed selecting the programmes
  you wish to, press the **yellow** function key (Sort).
> You can now move the selected programmes to any
  position in the programme list, using either the **arrow
  keys up/down** or the **numeric keypad**.
> Press the **yellow** function key (Store) to store the
  programme(s) at the new position.
> When you have completed configuring the programme
  list according to your own preference in this manner,
  press the **Back** key twice to return to normal
  operation.

7.1.5 Blocking access to programmes (Parental Control)

You have the facility to block access to programmes. A
blocked programme will only be displayed on screen once
the programme has been selected, after which the PIN code
must be entered. Once this code has been entered, the
restriction remains de-activated until the receiver is switched
off (Standby).

To block access to a programme, proceed as follows:
> Call up a programme list by pressing **OK**.
> Press the **blue** function key (Change).
> Now use the **arrow keys up/down** to select the programme you wish to block/restrict.
> Now press the **green** function key to select the function **Parental Control**.
  A lock symbol will appear next to the programme selected.
> If you wish, repeat the procedure until you have blocked access to all programmes you wish to block.
> When you have completed configuring the programme list according to your preferences in the manner described above, press the **Back** key twice to return to normal operation.
> In order to activate the parental control function, you must still enter your personal PIN code under the following point **Changing the PIN,** following which you must switch on the parental control as described in **Point 5.2.1 (Parental Control)**.

7.2 Changing the PIN

The PIN code is set at the factory to **0000**. In order to activate the parental control function you must enter your own personal PIN code in place of the factory setting.
Note! Do not forget your PIN code. If you do forget, please consult your authorised retailer!
In order to change the PIN code proceed as follows:
> Press the **Menu** key to call up the **Main Menu**.
> Use the **arrow keys up/down** to select the line **Settings**.
> Confirm by pressing **OK**.
  The sub-menu **Settings** will be displayed.
> Use the **arrow keys up/down** to select the line **Change PIN,** and confirm by pressing **OK**. The menu **Change Unit PIN** will be displayed *(Fig. 7-4)*.
> Now use the **numeric keypad** to enter the current PIN code (factory setting: 0000).
> Now use the **numeric keypad** to enter the new PIN code. Repeat the entry.
> Once you have changed the PIN code in this manner, press **Back** twice to return to normal operation.
Please note that you still need to activate the parental control function, if desired, as described in Points 5.2.1 and 7.1.5.

(Fig. 7-4)

Main Menu ▶ Settings ▶ Change Receiver PIN

Receiver PIN   ????
Enter new PIN
Repeat new PIN

Help

7.3 Cancelling parental control for individual programmes

In order to delete the parental control block for individual programmes, proceed as per Point 7.1.5. First press the **blue** function key (Change), then enter the PIN code. Select the appropriate programme and use the **green** function key (Parental Control) to remove the access control.

7.4 Programme search

There are various methods of proceeding with a programme search, which will allow you to receive new programmes.

1. Automatic Search/Scan:
Select this type of search in order to scan the entire frequency range of the receiver for programmes.

2. Extended Search:
Select this type of search to scan only a specific range of frequencies or channels for programmes.

3. Manual Search
Select this type of search to scan a specific frequency for programmes.

When the search has been completed, your screen will display a message showing how many programmes have been found by your receiver, and how many of these are new. New programmes are stored in the **Total list** and can be added to the **Favourites list** as per **Point 7.1**.

> To perform a programme search first call up the **Main Menu**. *(Fig. 7-5)*
> Use the **arrow keys up/down** dto highlight the line **Search.**
> Confirm by pressing **OK**. The sub-menu **Search** will be displayed *(Fig. 7-6)*
> Now use the **arrow keys up/down** to select the type of search method you wish to perform.
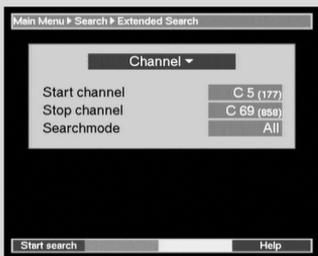
7.4.1 Automatic Search

> A message will be displayed, confirm this by pressing **OK**. The entire input frequency range will now be scanned for programmes. Please note any further messages that are displayed on screen.
> It may take more than 15 minutes to complete the search.
> You can terminate the search by pressing the **red** function key.

(Fig. 7-5)

(Fig. 7-6)

7.4.2 Extended search

When performing an extended search *(Fig. 7-7)* you have two options of performing this.

1. Frequency search

The user specifies a frequency range which is then scanned for programmes.

2. Channel search

In this case, the user specifies a range of channels, which is then scanned for programmes. Performing a channel search is faster than a frequency search.

> Press the **OK** key to display a table showing the various search options available.
> Use the **arrow keys up/down** to select the search method you wish to use.
> Confirm by pressing **OK**.
> Use the **arrow keys up/down** to select the field **Start channel** resp. **Start frequency**.
> Use the **arrow keys left/right** to enter the start channel, or use the **numeric keypad** to enter the start frequency.
> Use the **arrow keys up/down** to select the field **Stop channel** resp. **Stop frequency** and proceed as described above to enter the stop channel resp. the stop frequency.
  You can now go to the line Search Mode to decide whether you want to search only for free-to-air programmes, or whether you want to include encrypted programmes in the search.
> Use the **arrow keys up/down** to select the line **Search Mode**.
> Press the **OK** key to decide whether you wish to search only for free-to-air programmes (**Only Free**) or whether you want to include encrypted programmes as well (**All**).
> Press the **red** function key (Start Search) to commence the search.
  The search will now be started. Please note any further messages displayed on screen.
> The search can be terminated by pressing the **red** function key.

The complete scan may take more than 15 minutes. Please note any messages displayed on screen.

7.4.3 Manual Search

You may search a frequency range for programmes, or you may search for a specific programme by means of the PID data.

> To do this, use the **arrow keys up/down** to select the line **Manual Search**.

(Fig. 7-7)

Channel ▼

Start channel   C 5 (177)
Stop channel   C 69 (858)
Searchmode   All

Start search   Help

> Confirm by pressing **OK**. The menu **Search Manual Search** will be displayed *(Fig. 7-8)*
> To search a channel for programmes, use the **arrow keys left/right** to enter the channel.
> Press the **red** function key (Start Search) to commence the search.
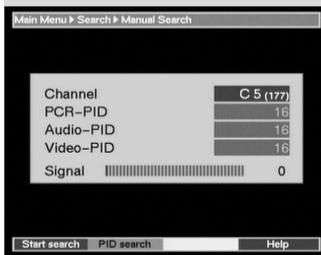
PID Search

Should you be unable to find a particular programme by means of an automatic or extended search, it may be necessary to enter additional PID data, which is specific to this programme. You may have to go to the Internet or to the programme provider to obtain this data.

> Enter the channel ,on which the programme is broadcast, as described above.
> Press the **green** function key (**PID Suche)** to enter the PCR-, Audio- and Video-PID. *(Fig. 7-9)*
> Then use the **arrow keys up/down** to highlight, in turn, the lines **PCR-PID**, **Audio-PID** and **Video-PID.** Use the **numeric keypad** to enter the appropriate numbers.

7.4.4 After the Search

As the search progresses, you can follow the frequencies/channels searched on the TV screen. When the search is completed, the total number of programmes found as well as the number of new programmes found will be displayed.

> Press the **Menu** key to return to normal operation.
> The programmes can now be added individually to the Favourites list, as described in Chapter 7.1.

Channel	C 5 (177)
PCR-PID	16
Audio-PID	16
Video-PID	16
Signal |||||||||||||||||||||||||||||||||||	0

Start search   PID search   Help

(Fig. 7-8)

Channel	C 5 (177)
PCR-PID	16
Audio-PID	16
Video-PID	16
Signal |||||||||||||||||||||||||||||||||||	0

Start search   TS search   Help
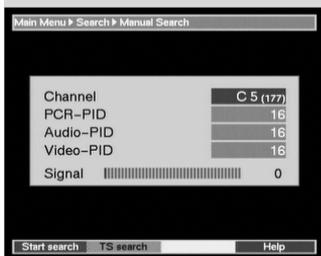
(Fig. 7-9)
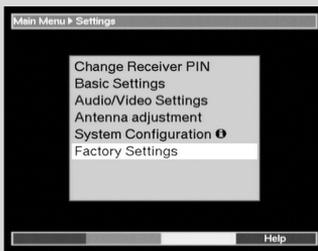
31

7.5 Calling up factory settings/Delete All

You can return to the original factory (default) settings at any time. You can also, if the programme list is completely outdated because of changes made by programme providers, delete this completely, and then perform a new search. Please note that after you have carried out the Delete function you must start a search, and must then copy the desired programmes from the Total list to the Favourites list.

> Use the **Menu** key to call up the **Main Menu**.
> Now use the **arrow keys up/down** to select the line **Settings**.
> Confirm by pressing **OK**. The sub-menu **Settings** will be displayed *(Fig. 7-10)*
> Now use the **arrow keys up/down** to select the line **Factory Settings**.
> Confirm by pressing **OK**. The sub-menu **Factory Settings** will be displayed *(Fig. 7-11)*

Main Menu ▶ Settings

Change Receiver PIN
Basic Settings
Audio/Video Settings
Antenna adjustment
System Configuration ❶
Factory Settings

Help

(Fig. 7-10)

Main Menu ▶ Settings ▶ Factory Settings

Restore Factory Settings
Delete All Programs

Help

(Fig. 7-11)

7.5.1 Activating Factory/Default Setting

This function allows you to return to the original default settings, at the same time deleting all your personal settings.
> Use the **arrow keys up/down** to select the line **Activate Default Settings**.
> Confirm by pressing **OK**.
  The message "Do you really want to activate default settings?"will be displayed.
> Use the **arrow keys left/right** to select **Yes** or **No.**
> Confirm by pressing **OK.**

7.5.2 Delete All Programmes

This function allows you to delete the entire programme memory.
> Use the **arrow keys up/down** to select the line **Delete All Programmes**.
> Confirm by pressing **OK**.
  The message "Do you really want to delete all programmes?" will be displayed.
> Use the **arrow keys left/right** to select **Yes** or **Abort.**
> Confirm bei pressing **OK.**
  Please also note any messages displayed on screen.

7.6 System configuration

This menu item allows you to view the specific unit data.
> Use the **arrow keys up/down** to select this line in the sub-menu **Settings**.
> Confirm by pressing **OK**.
> Press the **Menu** key to return to normal operation.

8 Technical Terms

Antenna cable (co-axial cable):
The connecting cable used between antenna and receiver, to transmit the signal received

Data compression/MPEG-1/MPEG-2:
Using the current television standards (625 lines, and 50 Hz image repeat frequency) means that a data volume of 216 MBit/s. This would require bandwidths simply not available with either satellite or terrestrial transmission. Therefore it was decided to reduce the data volume by using a data compression programme. In Europe, MPEG-2 has been agreed upon as the international standard for data compression. MPEG-2 is an expanded version of MPEG-1

DVB:
Digital Video Broadcasting: A universal digital broadcasting technology used for pictures, graphic images, sound and text, i.e. for data in any form, and always in every possible quality suitable to the type of data

DVB-T Receiver:
The signals received by the antenna cannot be processed by the television set. The signals are processed in the DVB-T receiver in such a way that an audio-visual (AV) signal is provided at the receiver's outputs in a form suitable for the television set

Frequency:
A physical measurement indicating the number of waves or oscillations per second. The unit of measurement is called Hertz (Hz)

Channel:
Part of a frequency band which is apportioned according to a specific allocation procedure. A TV channel consists of two frequencies, one for the visual content and one for the sound content. Each channel is designated by means of a numeric abbreviation (except for those European television channels in the frequency range 40 - 230 MHz, which have been given letters of the alphabet as designations).

Modulator:
Switch in the receiver facilitating the connection to the TV set by means of antenna cable

Mode:
determines whether a mono or a stereo programme is received

OSD:
On **S**creen **D**isplay (messages shown on TV screen)

PID:
Packet **Id**entifier, Packet-ID

SCART:
Type of plug/socket connection used in television sets, video recorders, satellite receivers and other entertainment electronics products to transmit both sound and picture (audio and visual, or AV) signals.

Software Update:
Digital television is a new medium. It provides not only improved sound and picture quality, but also the facility for providing interactive services. These services are continually being developed and improved by programme providers. In order to utilise these services it may become necessary to update the receiver's software.

9 Technical Data

DVB-T Tuner:

Input frequency range	174 .... 230 MHz / 470 .... 860 MHz
Frequency range tuner input to tuner output	50 .... 860 MHz
Tuner input	IEC socket
Input/output impedance	75 Ohms
Tuner output	IEC connector
Modulator output channel range	UHF channels 1 .... E69
Video systems	Pal I, B/G, Secam B/G
Bandwidth	7/8 MHz (switchable)
Demodulation	COFDM 2k/8K
Antenna feed	5V/0,1A (double insulated, switchable)

Demultiplexing: according to ISO 13818-1

Video decoding:

Video compression	MPEG-2 and MPEG-1 compatible up to MP@ML (main profile @ main level)
Video standard	PAL / 25 Hz
Active image area	720 pixels x 576 lines
Picture format	4 : 3 / 16 : 9

Image material 16:9	Automatically adapted for 16:9 TV sets (via SCART) Letterbox filtering for 4:3 TV sets

Audio decoding:
Audio compression	MPEG-1 & MPEG-2 Layer I and II
Audio Mode	Dual (main/sub), Stereo
Sampling frequencies	32 kHz, 44.1 kHz, 48 kHz,

Audio parameters:

Output analogue:
Output level L/R	0,5 V r.m.s. (nominal)
Output impedance	600 Ohms
THD	> 60 dB (1 kHz)
Crosstalk	< - 65 dB
Volume when switched on	Stores last value set

Video parameters:

Output:
Output level FBAS	1 Vs-s into 75 Ohms
Output level RED	0,7 Vs-s into 75 Ohms
Output level GREEN	0,7 Vs-s into 75 Ohms
Output level BLUE	0,7 Vs-s into 75 Ohms

Teletext
Teletext Filtering	corresponding to ETS 300 472 Standard
Reception Teletext data	(FBAS) corresponding to ITU-R BT.653-2 lines: 6-22 and 320-335

TV SCART:
Output:	FBAS nd RGB

Serial Interface RS 232:
Type	RS 232, bi-directional
Bit rate	115 kBit/s
Connector	D-SUB socket, 9 pin
Function	Update for operating software

EPG Data:
Current, following and preview events of current programme selected

Timer:
32 events, maximum of 1 year in advance

OSD languages:
German, English

Remote Control System: RC-5
Subsystem address	10 (SAT 2)
Modulation frequency	36 kHz
Infrared wavelength	950 nm

Mains power supply:
External mains connector: 12V / 600 mA

Power requirement:
< 10 W (in operation, incl. power feed to antenna)

Input Voltage:
12 V .... 15 V Direct current

General:
Ambient temperature   +15°C...+35°C
Humidity   < 80%
Dimensions (WxDxH):   158 mm x 115 mm x 47 mm
Weight: 0,5 kg

10 Trouble-shooting guide

Dear Customer,
we would like to point out once again that, if the following fault occurs, you should first try to solve the problem yourself in the manner described, before contacting your service/repair specialist.

The receiver is not functioning properly (controls do not respond, image frozen ...)
> Disconnect the mains power plug for approx. 5 seconds.
> Then switch the receiver on again.

If the problem persists further, contact your service technician.

Problem	Possible cause	Solution
Display on, no picture, no sound	Defective or no cable connection	Check all cable connections
Display off, no picture, no sound	No mains power supply	Check mains power switch
No reception of programmes previously in order	Antenna has moved	Check antenna
	Programme now broadcast on a different frequency	Perform search (see Point 7.4)
	Programme no longer being broadcast	None
Various programmes not shown in programme list	Wrong programme list selected	Select different programme list (see Point 6.2.3.1)
Sound OK, screen blue	Set to radio mode	Change setting to TV mode
Unit cannot be operated	Defective data stream-->unit blocked	Disconnect mains plug for approx. 5 seconds, then switch unit on again
Remote control not working	Batteries are spent	Replace batteries
Square blocks appear temporarily on screen. TV temporarily switches to freeze frame, with no sound. Screen occasionally black, displays message "no signal".	Antenna position not correctly adjusted	Adjust antenna position

For everyday use

Switching on and off

> Switch the receiver on by pressing the **On/Standby** key, either on the receiver unit itself or on the remote control.
> Press the key again either on the receiver unit or on the remote control to switch the receiver off again.
> The receiver is now in Standby mode.

Programme selection

Using the Programme up/down keys

> Use the **Programme up/down** either on the receiver unit itself or on the remote control to switch the programmes up or down the programme list one position at a time.

Using the numeric keypad

> Use the numeric keypad to enter the desired programme number.

For example

1   for programme slot 1
1, then **4**   for programme slot 14
2, then **3**, then **4** for programme slot 234

When entering programme numbers with more than one digit you have approx. 3 seconds time after pressing a key to enter the next digit and complete the entry.

If you wish to enter only a single or double-digit number, you can speed up the switching procedure by holding down the key when you enter the last digit.

Volume adjustment

> You can adjust the volume of your receiver by pressing the **Volume +** key to make the sound louder, or the **Volume -** key to make it softer.
> Press the key **Sound on/off** to mute the sound, press the key again to switch the sound back on.

TV/Radio switching

The pre-programming of your receiver covers radio as well as television programmes. In Radio mode, the corresponding TV picture is switched off, and only the programme name is displayed on screen.

> Press the **TV/Radio** key to switch the receiver to Radio mode.
> The receiver will now switch automatically to the last radio programme selected.
> Press the key **TV/Radio** again to return to the television programme last selected.